

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:**

1. A molding system including a plurality of mold
5 blocks which move along a molding path to form double
wall plastic pipe having an outer wall with corrugations
which set outside diameter of the pipe corrugations and
an inner wall around a bore through the pipe, said mold
10 blocks having profiled faces which determine shape of the
pipe, said profiled faces being reconfigurable in profile
between a first and a second face profile to vary both
depth of the corrugations and diameter of the bore
through the pipe without varying external diameter of the
pipe.
- 15 2. A molding system as claimed in Claim 1, said
profiled faces of said mold blocks when configured with
the first face profile forming the pipe with a first
corrugation depth and a first bore diameter and when
20 configured with the second face profile forming the pipe
with a second corrugation depth greater than the first
corrugation depth and a second bore diameter less than
the first bore diameter.
- 25 3. A molding system as claimed in Claim 2 wherein
said inner wall of said pipe has a wall thickness that
remains essentially constant when reconfiguring the
profiled faces of the mold blocks between the first and
second face profiles.
- 30 4. A molding system as claimed in Claim 2 wherein
each said mold block includes a mounting surface and said
system includes first and second mold block face
attachments which interchangeably mount to said mounting
35 surface for reconfiguring of the profiled faces of the
mold blocks.

- 9 -

5. A molding system as claimed in Claim 4 wherein said profiled faces of said mold blocks include alternating crests and troughs to form the corrugations in the outer wall of the pipe, said first and second face attachments comprising first and second crest forming members, the first crest forming members being shorter than the second crest forming members and being used to provide the first face profile on the mold blocks, the second crest forming members being longer than the first crest forming members and being used to provide the second face profile on the mold blocks.

6. A molding apparatus as claimed in Claim 2 wherein said molding path includes cooling and shape holding means for the inner wall of the pipe, said means being diameter variable according to which face profile is provided on the faces of the mold blocks.

7. A molding system as claimed in Claim 6 wherein said cooling and shape holding means comprises first and second cooling plugs which are interchangeably fittable in said molding path, said first cooling plug having a diameter which is greater than that of said second cooling plug, the first cooling plug being used when the mold blocks have the first face profile and the second cooling plug being used when the mold blocks have the second face profile.

8. A pipe molding system which makes a continuous length of plastic pipe, said system comprising first and second mold block sections which circulate to and away from a mold tunnel into which a continuous stream of molten plastic is fed to form the pipe with an inner bore surrounded by a wall having an undulating exterior surface, the first mold block sections closing with the

- 10 -

second mold block sections to form a moving line of closed mold blocks while circulating through the mold tunnel and the first and second mold block sections parting from one another while circulating away from and back to the mold tunnel, both said first and second mold block sections having profiled faces which dictate shape of the pipe, said profiled faces including face attachments which are interchangeable at the profiled faces with other face attachments of different configurations to vary the shape of the pipe without replacing the mold block sections.

9. A pipe molding system as claimed in Claim 8 used to form the pipe with a smooth wall at the inner bore of the pipe and with a corrugated outer surface, the faces of the mold block sections having alternating crests and troughs on the profiled faces thereof, the face attachments comprising first attachments of a first length and second attachments of a second length, the first and second attachments being interchangeably fittable at the profiled faces of the mold block sections to vary height of the crests according to which one of said first and second attachments is fitted at the profiled faces which in turn produces a variance of depth of the troughs of the profiled faces of the mold block sections.

10. A pipe molding apparatus as claimed in Claim 9 including a locking member which releaseably locks each face attachment at each of the profiled faces of the mold block sections.

11. A pipe molding apparatus for making a continuous length of plastic pipe, said apparatus comprising first and second mold block sections each having profiled faces formed by crests and troughs on the profiled faces of the

- 11 -

mold block sections, a first set of face attachments and a second set of face attachments, the first and second sets of face attachments being interchangeably and releasably fittable to the profiled faces of the mold block sections, and first and second cooling plugs of diameters differing from one another, the first and second mold block sections circulating to and away from a molding tunnel of the apparatus which contains one of said cooling plugs, the mold tunnel receiving a continuous stream of molten plastic to form the pipe over the one of the cooling plugs with an internal bore and a wall having an undulating exterior surface around said bore, the undulating surface defining external diameter of the pipe, the first mold block sections closing with the second mold block sections to form a moving line of closed mold blocks while circulating through the mold tunnel and the first and second mold block sections parting from one another while circulating away from and back to the mold tunnel, said apparatus when in a first set up condition producing the pipe with a first bore diameter when the first set of face attachments are fitted to the profiled faces of the first and second mold block sections and when the first cooling plug is placed in the mold tunnel and the apparatus when in a second set up condition producing the pipe with a second bore diameter different from the first bore diameter while maintaining essentially constant wall thickness of the pipe when the second set of face attachments are fitted to the profiled faces of the first and second mold block sections and when the second cooling plug is placed in the mold tunnel, the external diameter of the pipe remaining constant in both the first and the second set up conditions of the apparatus.

12. A pipe molding apparatus as claimed in Claim 11 wherein said first set and second set of face attachments

- 12 -

interchangeably and releasably secure as crest forming members the of the profiled faces of the first and second mold block sections, the face attachments of the first set of face attachments being of a first length which is
5 less than length of the face attachments of the second set of face attachments and the first cooling plug having a diameter greater than that of the second cooling plug and the second bore diameter of the pipe being less than the first bore diameter of the pipe.